

Kit's Clever Circuits Quiz

Learning objective: To understand the basic components of a simple electrical circuit and how to represent them using symbols.

Help Kit the fox solve these electrical puzzles! Read each question carefully and circle the best answer or write your response in the space provided.

Answer Key: 1. A (Circuit); 2. True; 3. C (Battery); 4. False (it breaks the circuit); 5. Conductor; 6. B (Insulator); 7. False; 8. Bulb; 9. Switch; 10. A (It flows in a complete loop).

Word bank: Circuit · Battery · Switch · Conductor · Insulator · Component · Bulb · Electricity

1. 1. What do we call the complete path that electricity flows around? A) Circuit* B) Battery C) Bulb D) Wire (1 mark)

2. 2. True or False: A battery is the power source that pushes electricity around the circuit. (1 mark)

3. 3. Which of these is a common component used to provide energy? A) Wire B) Buzzer C) Battery* D) Switch (1 mark)

4. 4. True or False: A switch is used to keep the circuit closed at all times. (1 mark)

5. 5. What is the name for a material, like metal, that allows electricity to pass through it easily? (1 mark)

6. 6. What do we call a material that does NOT allow electricity to pass through? A) Conductor B) Insulator* C) Component D) Battery (1 mark)

7. 7. True or False: Plastic is a good conductor of electricity. (1 mark)

8. 8. Which component lights up when electricity passes through it? (1 mark)

9. 9. What component would you add to a circuit if you wanted to turn a buzzer on and off without disconnecting the wires? (1 mark)

10. 10. How does electricity move in a simple circuit? A) It flows in a complete loop* B) It stays in the battery C) It stops at the switch D) It jumps through the air (1 mark)

Draw: Kit needs your help! Draw a simple circuit consisting of a battery, a bulb, and a switch connected by wires. Make sure your switch is in the 'on' position so the bulb lights up!



Extension challenge: Imagine you are building a circuit for a toy. If the bulb was too dim, what could you do to the circuit to make it brighter? Write one sentence explaining your idea.